



FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 4 and 9

[PS Docket No. 15-80, PS Docket No. 13-75, ET Docket No. 04-35; FCC 21-45; FR ID 28761]

Disruptions to Communications; Improving 911 Reliability

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: Through this Third Notice of Proposed Rulemaking (NPRM), the Federal Communications Commission (FCC or Commission) proposes several rules to promote public safety by ensuring that 911 call centers and the public receive timely and useful notifications of network disruptions that affect 911 service. The NPRM seeks comment on whether to harmonize the Commission's public safety answering point (PSAP) outage notification requirements so that both originating and covered 911 service providers notify PSAPs about outages that potentially affect 911 within the same timeframe, by the same means, and with the same frequency. The NPRM proposes standardizing the information that is conveyed via outage notifications to PSAPs by service providers. This NPRM also proposes to require that service providers develop and implement procedures to gather, maintain, and update PSAP contact information annually. In addition, the NPRM proposes to require service providers to notify their customers when there is a reportable outage that affects 911 availability within 60 minutes of determining there is an outage. This NPRM also proposes to codify specific exemptions to certain reporting requirements adopted by the Commission in 2016.

DATES: Written comments to the Commission must be submitted on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]** and reply comments to the Commission must be submitted on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Written comments on the Paperwork Reduction Act proposed information collection requirements must be submitted by the public-and other interested parties on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by docket numbers PS Docket No. 15-80, PS Docket No. 13-75, and ET Docket No. 04-35, by any of the following methods:

- Federal Communications Commission’s website: <http://apps.fcc.gov/ecfs/>. Follow the instructions for submitting comments.
- By commercial overnight courier or first-class or overnight U.S. Postal Service mail. See the SUPPLEMENTARY INFORMATION section for more instructions.
- People with Disabilities: Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: FCC504@fcc.gov or phone: 202-418-0530 or TTY: 202-418-0432.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Beau Finley, Public Safety and Homeland Security Bureau, at 202-418-7835 or at Robert.Finley@fcc.gov.

For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, send an email to PRA@fcc.gov or contact Nicole Ongele at 202-418-2991 or at Nicole.Ongele@fcc.gov.

SUPPLEMENTARY INFORMATION: Pursuant to §§ 1.415 and 1.419 of the Commission’s rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission’s Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.

- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
- Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701. U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L Street NE, Washington, DC 20554.
- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. See FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy, Public Notice, DA 20-304 (March 19, 2020). <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>

The proceeding this NPRM initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules. 47 CFR 1.1200 through 1.1216. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments,

memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule §1.1206(b). In proceedings governed by rule §1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

Synopsis

I. INTRODUCTION

1. In this NPRM, the Commission proposes to enhance its regulatory framework governing notifications of disruptions to 911 service by harmonizing the Commission's notification requirements, improving the usefulness of outage notification content, requiring service providers to keep the public informed during periods of 911 unavailability, and ensuring the accuracy of PSAP contact information. The Commission also seeks comment on whether modifications to the associated reporting requirements would enhance public safety while reducing burdens on regulated entities. Section 1 of the Communications Act, as amended (Act), charges the Commission with "promoting safety of life and property through the use of wire and radio communications." 47 U.S.C. 151. This statutory objective and statutory authorities, also cited below, support the Commission's network outage reporting and 911 reliability rules, including the proposals here. 47 U.S.C. 151, 154(i), 154(j), 154(o), 201(b), 214(d), 218, 251(e)(3), 301, 303(b), 303(g), 303(r), 307, 309(a), 316, 332, 403, 615a-1, and 615c. In adopting this NPRM, the Commission continues its commitment to ensuring that the Commission's rules,

including those governing covered 911 service providers, are sufficient, necessary, and technologically appropriate. 79 FR 3123 (911 Reliability Report and Order).

II. BACKGROUND

2. The Commission oversees the integrity of 911 communications infrastructure primarily through three complementary mechanisms: 911 call transmission requirements; network outage reporting by service providers to both the Commission and potentially affected 911 special facilities, which also include PSAPs when there is a loss of communications to PSAP(s), subject to specific conditions; and 911 reliability and certification requirements. 47 CFR 4.5(a), (c), and (e) through (h), 9.4, 9.10(b), 9.11(a)(2), 9.18(a), 9.19.

3. Outage Reporting Rules. The Commission requires originating service providers—i.e., cable, satellite, wireless, wireline, and interconnected VoIP providers that provide the capability for consumers to originate 911 calls—as well as covered 911 service providers—i.e., providers that aggregate 911 traffic from originating service providers and deliver it to PSAPs—to notify both the Commission and PSAPs when they experience an outage that potentially affects 911. 47 CFR 4.3(a), (d), and (f) through (h), 4.9(a), (c), and (e) through (h), 9.19(a)(4).

4. The Commission has adopted four threshold criteria for reporting outages that potentially affect 911, any of which would trigger a notification requirement:

- (1) There is a loss of communications to PSAP(s) potentially affecting at least 900,000 user-minutes and: The failure is neither at the PSAP(s) nor on the premises of the PSAP(s); no reroute for all end users was available; and the outage lasts 30 minutes or more; or
- (2) There is a loss of 911 call processing capabilities in one or more E-911 tandems/selective routers for at least 30 minutes duration; or
- (3) One or more end-office or [Mobile Switching Center (MSC)] . . . switches or host/remote clusters is isolated from 911 service for at least 30 minutes and potentially affects at least 900,000 user-minutes; or

(4) There is a loss of [Automatic Number Identification (ANI)/Automatic Location Information (ALI)] . . . and/or a failure of location determination equipment, including Phase II equipment, for at least 30 minutes and potentially affecting at least 900,000 user-minutes (provided that the ANI/ALI or location determination equipment was then currently deployed and in use, and the failure is neither at the PSAP(s) or on the premises of the PSAP(s)). 47 CFR 4.5(e), 9.3.

5. The Commission currently has two different sets of requirements for the timing, content, means, and frequency of PSAP notification, depending on the nature of the provider. The first set of rules was originally adopted for common carriers in 1994, and was subsequently expanded to govern a broader set of communications providers called originating service providers. The second set of rules, adopted in 2013, governs covered 911 service providers, the entities that, as the Commission reasoned at the time, are the “most likely to experience reportable outages affecting 911 service.” 47 CFR 4.9(h); 911 Reliability Report and Order. Covered 911 service providers must notify PSAPs of outages that potentially affect them “as soon as possible, but no later than 30 minutes after discovering the outage,” whereas originating service providers are only required to notify PSAPs “as soon as possible.” 47 CFR 4.9(a)(4), (c)(2)(iv), (e)(1)(v), (f)(4), (g)(1)(i), (h). Covered 911 service providers must convey to PSAPs “all available information that may be useful in mitigating the effects of the outage, as well as the name, telephone number, and email address at which the service provider can be reached,” whereas originating service providers are only required to provide “all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on callers to that facility.” 47 CFR 4.9(a)(4), (c)(2)(iv), (e)(1)(v), (f)(4), (g)(1)(i), (h). Covered 911 service providers must notify PSAPs “by telephone and in writing via electronic means in the absence of another method mutually agreed upon in advance by the 911 special facility and the covered 911 service provider,” whereas originating service providers are only required to notify PSAPs “by telephone or another electronic means.” 47 CFR 4.9(a)(4), (c)(2)(iv),

(e)(1)(v), (f)(4), (g)(1)(i), (h). Finally, covered 911 service providers must follow up with the PSAPs within two hours of making the initial outage notification, providing “additional material information” that includes “the nature of the outage, its best-known cause, the geographic scope of the outage, the estimated time for repairs, and any other information that may be useful to the management of the affected facility,” whereas originating service providers are not required to follow up with PSAPs at all. 47 CFR 4.9(h). In adopting these broader requirements for covered 911 service providers in 2013, the Commission did “not seek to replace the existing [PSAP outage notification] scheme with a new, more onerous one, but rather, to clarify the timing and notification content with which certain service providers subject to section 4.9 must already comply.” 911 Reliability Report and Order at para. 146.

6. *911 Reliability and Certification Rules.* In the wake of the devastating derecho that affected the Midwest and Mid-Atlantic states in 2012, the Commission adopted a series of 911 certification rules to improve 911 network reliability. 911 Reliability Report and Order at paras. 48 through 65. These rules require covered 911 service providers to take reasonable measures to provide reliable 911 service with respect to 911 circuit diversity, central office backup power, and diverse network monitoring. 47 CFR 9.19(c). To ensure that covered 911 service providers have taken these measures, covered 911 service providers must certify as to their compliance with each of these three requirements or to their implementation of reasonable alternative measures. 47 CFR 9.19.

7. When the Commission adopted rules for covered 911 service providers in 2013, it committed to reexamining the rules after five years to consider whether the rules were still “technologically appropriate and both adequate and necessary.” 911 Reliability Report and Order at para. 159. The Commission stated that review of the rules would consider, among other things, whether the rules should be revised to cover new best practices, including outage reporting trends, whether to adopt Next Generation 9-1-1 (NG911) capabilities on a nationwide basis, and whether the certification approach has yielded the necessary level of compliance,

noting that a “persistence of preventable 911 outages could indicate a need for broader or more rigorous rules.” 911 Reliability Report and Order at para. 159. Thus, in 2018, the Public Safety and Homeland Security Bureau (Bureau) issued a public notice seeking comment on the rules’ effectiveness, as well as on reducing affected parties’ regulatory burdens. Public Safety and Homeland Security Bureau Seeks Comment on 911 Network Reliability Rules, PS Docket No. 13-75, Public Notice, 33 FCC Rcd 5987, 5988-90 (Public Safety and Homeland Security Bureau (PSHSB) 2018) (2018 911 Reliability Public Notice). The Bureau received ten comments and six reply comments from entities representing industry, local government, and the public safety community, and it also hosted meetings with stakeholders to obtain additional information.

III. DISCUSSION

8. In times of emergency, dialing 9-1-1 serves as a crucial life link for those in need of immediate help. In 2019 alone, those in crisis placed over 200 million emergency calls to 911. 911 Reliability Report and Order at para. 159. More than 70% of these emergency calls originate from wireless phones. 911 Reliability Report and Order at para. 11. Call takers in the nation’s approximately 5,700 PSAPs answer these calls and connect callers to emergency services that regularly save lives and safeguard property. 911 systems, however, are susceptible to outages that can occur in the underlying communications network. Ensuring that 911 services are restored quickly following network outages is a top public safety priority for the Commission. Commission rules, among other things, specify 911-related outage notification and 911 reliability certification requirements for providers. 47 CFR part 4, appendix A. In this document, the Commission proposes specific rules to ensure that its 911 notification framework remains robust, reliable, and responsive. These proposals, discussed below, will enhance public safety by ensuring that PSAPs and the public are provided with timely notification of disruptions to 911.

A. Improving PSAP Outage Notification

1. Harmonizing PSAP Outage Notification Requirements

9. When the Commission adopted the more specific notification requirements for covered 911 service providers in 2013, it stated that it would “defer for future consideration” whether originating service providers should be subject to those requirements, reasoning that covered 911 service providers are the entities most likely to experience reportable outages affecting 911 service. 911 Reliability Report and Order at para. 147. While the Commission’s outage reporting rules already require both originating service providers and covered 911 service providers to notify PSAPs of outages that potentially affect 911, the Commission’s experiences since adoption of the PSAP notification rules for covered 911 service providers in 2013 demonstrate that having different reporting obligations for originating service providers and covered 911 service providers is neither practicable nor in the public interest. For example, in at least two instances following a nationwide 911 outage, the Commission (through its Enforcement Bureau) found that the affected originating service providers had not taken adequate steps to notify PSAPs in a manner that would have allowed the affected PSAPs to ensure the public’s access to critical emergency services. T-Mobile USA, Inc., File No. EB-SED-15-00018025, Order, 30 FCC Rcd 7247, para. 2 (EB 2015) (T-Mobile Order); AT&T Mobility, LLC, File No. EB-SED-17-00024532, Order, 33 FCC Rcd 6144, 6145, para. 2 (EB 2018) (AT&T Mobility Order).

10. In August 2014, T-Mobile experienced two network outages that, taken together, resulted in 50,000,000 subscribers nationwide being unable to reach 911 call takers for a three-hour period. T-Mobile Order. During that time, PSAPs were not informed of the outage and consequently could not promptly notify the public of alternative means to reach emergency services. T-Mobile Order. And, in March 2017, AT&T Mobility experienced a network outage that resulted in 135,000,000 subscribers nationwide being unable to reach 911 call takers for a five-hour period. PSHSB, March 8, 2017 AT&T VoLTE 911 Outage Report and Recommendations, PS Docket No. 17-68, at 3, n.1 (2017), https://apps.fcc.gov/edocs_public/attachmatch/DOC-344941A1.pdf (AT&T VoLTE 911 Outage

Report). PSAPs did not receive information about the AT&T Mobility outage until “approximately three and a half hours after the outage began and approximately two and a half hours after AT&T Mobility sent internal mass notifications to company executives and senior staff about the event.” AT&T Mobility Order; AT&T VoLTE 911 Outage Report; Letter from Karima Holmes, Director, District of Columbia Office of Unified Communications, to PSHSB, PS Docket No. 17-68, at 1-2 (Mar. 31, 2017).

11. The Commission now proposes to require that originating service providers and covered 911 service providers notify PSAPs about all such outages within the same timeframe, by the same means, and with the same frequency. The Commission specifically proposes to require originating service providers to notify potentially affected 911 special facilities of an outage within the same time frame required for covered 911 service providers. As noted above, that time frame is as soon as possible but no later than 30 minutes after discovering the outage. The Commission also seeks comment on whether this timeframe is adequate for PSAPs. The Commission seeks comment on whether and how to improve this proposal to shorten this timeframe for either or both sets of providers and/or adjust the reporting criteria to ensure more rapid and effective notification to PSAPs. For example, would automatic PSAP notification, triggered upon detection of an outage, be possible, provide value to PSAPs, and be in the public interest? The Commission also proposes that originating service providers transmit such notification, as presently required for covered 911 service providers, by telephone and in writing via electronic means and that they communicate additional material information as that information becomes available, but no later than two hours after the initial notification. The Commission seeks comment on its proposed means for PSAP notification. Are these means—by telephone and in writing via electronic means—adequate for notifications from originating service providers? Are they adequate for notifications from covered 911 service providers? Are there alternative methods of notification that PSAPs would prefer? The Commission also seeks comment on the proposed frequency of updating PSAPs with material outage information. Is

this proposed frequency sufficient for PSAPs? During an extended outage, when material information may not change for many hours, how should the Commission require originating and covered 911 service providers keep PSAPs informed?

12. The Commission anticipates that such changes will enhance PSAP situational awareness of outages generally and will ensure that PSAPs receive critical information in a timely manner by providing a uniform set of expectations for those providers with whom they interface. This in turn will enhance PSAPs' abilities to direct scarce resources toward mitigating outages rather than seeking out information and will further streamline the ability of the Commission to administer the rules and the ability of providers to fulfill their obligations. This view was underscored by the Association of Public-Safety Communications Officials (APCO), and comments from other public safety stakeholders during the Bureau's 2017 workshop on best practices and recommendations to improve situational awareness during 911 outages. Public safety officials stated that the critical information contained in these notifications enables them to be more efficient. One participant, Dave Mulholland of Arlington County 9-1-1, stated that prompt communication of this critical information would save "a lot of time, energy, and effort" by preventing PSAPs from needing to reach out to neighboring PSAPs to determine the breadth of an outage. Evelyn Bailey of the National Association of State 911 Administrators (NASNA) continued, stating that "[PSAPs] need to know as much specific [outage] information as possible." Public safety representatives requested that PSAPs receive equivalent outage notifications regardless of where in the network an outage occurs. In other words, according to the public safety representatives speaking during the webcast, PSAP notifications should not differ depending on whether the outage is caused by a disruption in an originating service provider's network versus a covered 911 service provider's network. As discussed below, PSAPs that receive actionable 911 outage notifications use the information in these notifications to facilitate reliable and timely public access to emergency services.

13. The Commission seeks comment on its proposal to harmonize the timing, means, and frequency of PSAP notification for originating service providers and covered 911 service providers. While the Commission observes that the AT&T Mobility and T-Mobile outages referenced above provide examples of inadequate PSAP notifications by originating service providers in the context of outages that only affect 911 calls, the Commission notes that both originating and covered 911 service providers have notice obligations. Both must include any required information in a notification to a PSAP only to the extent that it is available, both at the time of the initial notification and at the time of subsequent updates, regardless of whether the outage is a 911 outage or a general network outage that prevents all calls, insofar as either the outage disrupts or prevents communications to a PSAP or has the potential to do so. 47 CFR 4.9(a)(4), (c)(2)(iv), (e)(1)(v), (f)(4), (g)(1)(i), (h). The Commission seeks comment on any alternative requirements that the Commission should consider to minimize potential burdens, if any, on PSAPs and service providers.

14. Under the Commission's proposed rules, if adopted, originating service providers would be under greater time pressure to notify PSAPs; would need to provide contact information so that the PSAP can reach them for follow up; would need to provide notification by two means (e.g., phone call and e-mail) instead of one; and would need to provide follow-up notification. The Commission seeks comment on the extent to which these changes would increase the burden of PSAP notification for originating service providers. For example, the Commission seeks comment on whether originating service providers would need to transmit multiple, regional PSAP notifications under the proposed rules when 911 outages affect areas monitored by more than one Network Operations Center (NOC) and the local NOC is the best point of contact for PSAPs' outage-related inquiries, whereas the Commission's current rules would only require them to transmit one.

15. The Commission notes that in certain circumstances, PSAPs may find that there are benefits to learning of outages or network disruptions that potentially affect 911 but do not meet

the current reporting thresholds. Are the Commission's thresholds for PSAP notification too high? Should the Commission modify these notification requirements so that originating and covered 911 service providers are required to notify PSAPs of network disruptions that potentially affect 911 service but do not meet the thresholds necessary to report to the Commission? What would be the appropriate outage reporting threshold requiring PSAP notification? The Commission seeks comment on the utility to PSAPs and benefits to public safety of any consequent increased situational awareness of network outages potentially affecting 911. The Commission also seeks comment on the costs of lowering these thresholds in light of the expected increase in notifications to PSAPs. The Commission seeks comment on how many additional outages beyond the estimated 37,000 outages that potentially affect 911 each year would be reportable to PSAPs.

16. The Commission seeks comment on the cost and benefits of originating service providers notifying PSAPs about 911 outages within the same timeframe, by the same means, and with the same frequency that covered 911 service providers currently do. The cost estimates below are incremental to the costs that originating service providers already incur to notify PSAPs of outages that potentially affect them pursuant to the Commission's rules. The Commission seeks comment on those estimates. Additionally, the actual cost that originating service providers would incur to comply with this requirement may be substantially lower than estimated. 47 CFR 4.9(a)(4), (c)(2)(iv), (e)(1)(v), (f)(4), (g)(1)(i). For example, Verizon suggests that some service providers may have automated their PSAP outage notification processes. For originating service providers that have automated PSAP notification, the Commission anticipates that the proposed changes to the notification process would not result in recurring costs. The Commission seeks comment on this premise, as well as on the extent to which service providers have set up automated triggers for PSAP notification. The Commission expects that the costs of PSAP outage notifications will fall as service providers transition to an automated PSAP outage notification process. The Commission seeks comment on the extent to

which service providers expect to transition to an automated notification process and the timeframe for any such transition.

2. Ensuring PSAPs Receive Actionable Information about 911 Outages

17. Since the adoption of the PSAP notification rules, PSAPs have reported that notifications they receive often are confusing or uninformative, and have emphasized the need for clear and actionable information regarding 911 outages so 911 authorities can inform the public about alternative means to contact emergency services. Commenters representing public safety and industry agree that uniform information elements in PSAP notifications can help minimize confusion at PSAPs. The Commission also has observed that when PSAPs receive actionable 911 outage notifications, they are empowered to use reverse 911, post on social media platforms, work with local media to run on-screen text crawls, and use other tools at their disposal to notify the public of alternative means to reach their emergency services. During AT&T Mobility's nationwide 911 outage, for example, when AT&T notified PSAPs in Orange County, Florida several hours after it discovered the outage, Orange County PSAPs were able to take measures to notify the public of their alternative 10-digit phone numbers as a means to reach their emergency services. AT&T VoLTE 911 Outage Report. Once Orange County PSAPs provided their alternative 10-digit phone numbers to the public, they received 172 calls to those numbers during the one and a half hours until AT&T Mobility resolved the outage. AT&T VoLTE 911 Outage Report. The Bureau has credited these measures as being critical to maintaining the public's continued access to emergency services during several widespread 911 outages. AT&T VoLTE 911 Outage Report; T-Mobile Order; PSHSB, December 27, 2018 CenturyLink Network Outage Report (2019), <https://www.fcc.gov/document/fcc-report-centurylink-network-outage/>; Verizon, File Nos. EB-SED-14-00017189, EB-SED-14-00017676, EB-SED-14-00017373, Order, 30 FCC Rcd 2185 (EB 2015).

18. The Commission thus proposes to require originating service providers and covered 911 service providers to include "all available material information" in their PSAP outage

notifications. The Commission believes this proposal will help ensure that PSAPs receive relevant, actionable information to better understand 911 outages and to promote continuity of 911 service, while minimizing superfluous or vague information. In addition to the specific information elements articulated for covered 911 service providers in the current rules, the Commission proposes that material information should also include the following for both originating service providers and covered 911 service providers, where available:

- The name of the service provider offering the notification;
- The name of the service provider(s) experiencing the outage;
- The date and time when the incident began (including a notation of the relevant time zone);
- The type of communications service(s) affected;
- The geographic area affected by the outage;
- A statement of the notifying service provider's expectations for how the outage will affect the PSAP (e.g., dropped calls or missing metadata);
- The expected date and time of restoration, including a notation of the relevant time zone;
- The best-known cause of the outage; and
- A statement of whether the message is the notifying service provider's initial notification to the PSAP, an update to an initial notification, or a message intended to be the notifying service provider's final assessment of the outage.

19. These proposed outage notifications elements follow the template developed by the Alliance for Telecommunications Industry Solutions' (ATIS) Network Reliability Steering Committee (NRSC) Situational Awareness for 9-1-1 Outages Task Force Subcommittee (NRSC Task Force), working together with public safety stakeholders, minus the NRSC Task Force's inclusion of an incident identifier. In the 2018 911 Reliability Public Notice, the Bureau sought comment on whether the NRSC Task Force's template should serve as a model for standardization, and commenters support the NRSC Task Force's work. For example, the

National Emergency Number Association (NENA) suggests that the elements of the NRSC Task Force’s template “will aid PSAPs and 9-1-1 authorities in quickly understanding the nature of a service degradation or network downtime.”

20. The Commission seeks comment on whether these baseline elements would provide useful and actionable information to PSAPs. Will ensuring that PSAPs receive the same information regardless of where a 911 outage originates promote situational awareness for PSAPs in a manner that aids in emergency response? Are there additional informational elements that should be added, or should any elements listed be removed or revised? The Commission notes that the NRSC Task Force’s template recommends the inclusion of a unique identifier associated with the outage. Would this help PSAPs organize and access information related to a particular outage? APCO suggests covered 911 service providers should also offer PSAPs graphical interface data describing the geographic area potentially affected by outages, such as “coordinate boundaries for the outage area, GIS files, or text information from the covered [911] service providers’ internal reporting systems,” because such information could help first responders understand which areas could be affected by an outage. To what extent do originating and covered 911 service providers have this information available within the timeframe that they would be required to notify PSAPs? The Commission seeks comment on what steps service providers would need to take to include graphical information in providing actionable information to PSAPs. The Commission asks commenters to describe in detail how PSAPs would use such data to benefit the public, including how such data could be used to reduce first responder response times. Would requiring them to provide this information to PSAPs impose a significant burden or divert resources, thereby delaying service restoration? To the extent service providers are unable to provide data for visualizing outages and disruptions, what are the costs of developing this capability, especially for smaller providers?

21. The Commission notes that, under both the existing and proposed rules, service providers must include any outage information in their PSAP notifications only to the extent that

it is available, both at the time that they transmit the initial notification and at the time that they transmit any subsequent notifications. The Commission seeks comment on how this approach has worked in practice. The Commission further seeks comment on whether requiring service providers to include additional, specific information elements in their PSAP notifications would allow PSAP personnel to comprehend outage information more quickly and whether such information would improve PSAPs' ability to respond when the public cannot reach 911 or when 911 services otherwise do not work as intended. Conversely, the Commission seeks comment on whether this additional information could have negative consequences for emergency response, such as overburdening PSAPs with too much information, thereby, potentially delaying response times. If so, how could the Commission revise the proposal to minimize the possibility of notification fatigue?

22. The Commission does not propose to require information to be provided in a particular format (e.g., by mandating use of the NRSC Task Force's template). Instead, the Commission proposes an approach that establishes a baseline expectation of shared information while otherwise preserving flexibility for originating service providers and covered 911 service providers. PSHSB Shares Recommended Practices from September 11, 2017 911 Workshop, DA 18-6, Public Notice, 33 FCC Rcd 11 (PSHSB 2018). The Commission seeks comment on this approach, or on whether the Commission should prescribe such a format, and if so the terms thereof. Considering the diverse, localized nature of 911 networks in the United States, and the extent to which notifications already may be informed by originating service providers' and covered 911 service providers' agreements with state and local 911 authorities, the Commission specifically seeks comment on whether this approach would allow originating service providers and covered 911 service providers to better meet individual PSAPs' distinct needs. The Commission would anticipate that service providers' notification processes may go beyond those proposed in this NPRM in some circumstances, such as by mutual agreement of the parties.

23. In March, the Commission adopted a Report and Order that established an outage information sharing framework to provide state and Federal agencies with access to outage information to improve their situational awareness, enhance their ability to respond more quickly to outages impacting their communities, and help save lives, while safeguarding the confidentiality of this data. Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications, PS Docket No. 15-80, Second Report and Order, 86 FR 22796 (April 29, 2021), FCC 21-34 (rel. Mar. 18, 2021) (Network Outage Reporting System (NORS) Information Sharing Report and Order). The Commission acknowledges that disclosing specific outage information to PSAPs may make that information available to other parties and therefore seek comment on whether the Commission should supply similar safeguards as adopted in the NORS Information Sharing Report and Order. The Commission seeks to balance PSAPs' need for actionable information with providers' need for confidentiality. The Commission seeks comment on how the Commission might address this balance. For example, is there a subset of information that would prove as useful for PSAPs that could be disclosed without overly burdening the presumption of confidentiality afforded reported outage information? Could PSAPs obtain access to this same outage information from state or other agencies more rapidly and efficiently than directly from service providers?

24. The Commission seeks comment on the cost and benefits of originating service providers and covered 911 service providers to report the same specific, actionable content in their PSAP outage notifications. The Commission anticipates the actual cost may be substantially lower than the estimate below because the estimated number of service providers that would be required to comply is conservatively broad. Further, the Commission expects that the additional information that the Commission proposes to require originating service providers and covered 911 service providers to report to PSAPs already is available to them at the time of notification, and that the example of the NRSC Task Force's template would help to streamline compliance timelines and reduce costs. The Commission seeks comment on whether

standardization and streamlining could reduce the compliance costs for originating service providers that also act as covered 911 service providers in other contexts, or for originating service providers that are already offering notifications to PSAPs, but doing so with limited guidance on what information to provide. The Commission also notes that the NRSC has already created and shared a tutorial for PSAPs to facilitate the sharing of PSAP contact information with originating service providers and covered 911 service providers. The NRSC stated that it “expects that both service providers and PSAPs can benefit from this tutorial.” To the extent that commenters advocate a different approach, the Commission asks for costs and benefits of such alternatives.

3. Updating and Maintaining Accurate Contact Information for Officials Designated to Receive Outage Notifications at Each PSAP

25. The Commission’s current outage reporting rules require originating service providers and covered 911 service providers to transmit PSAP outage notifications to any official who has been designated by the management of the affected PSAP as the provider’s contact person for communications outages at that facility. 47 CFR 4.9(a)(4), (c)(2)(iv), (e)(1)(v), (f)(4), (g)(1)(i), (h). To ensure that PSAPs receive the information they need about 911 outages, the Commission proposes to require originating service providers and covered 911 service providers to develop and implement procedures for gathering, maintaining, and updating PSAP contact information. Because time is of the essence when a 911 outage occurs, originating service providers and covered 911 service providers must notify the right contacts at PSAPs so that the PSAPs can take prompt measures to help the public continue to reach emergency services.

26. The Commission proposes to amend § 4.9(h) of its rules to require both originating service providers and covered 911 service providers to identify the PSAPs they serve and to maintain up-to-date contact information for those PSAPs. In particular, the Commission proposes to require that originating and covered 911 service providers develop and implement standard procedures to: (1) maintain current contact information for officials designated to

receive outage notifications at each PSAP in areas that they serve; and (2) on a routine basis, at least annually, review and update their PSAP contact information to ensure it remains current. The Commission seeks comment on this proposal. The Commission also seeks comment on whether to require originating service providers and covered 911 service providers to offer contact information reciprocally to PSAPs. The Commission does not, however, propose to specify the procedures that service providers must develop or follow to elicit PSAP contact information to retain flexibility in this regard. The Commission seeks comment on this approach.

27. The Commission seeks comment on the cost and benefits of originating service providers and covered 911 service providers to maintain up-to-date contact information for PSAPs in areas they serve. The Commission anticipates that the actual costs that originating service providers and covered 911 service providers would incur to comply with this requirement may be substantially lower than the estimate below because the Commission's rules already require these service providers to notify PSAPs of 911 outages and, as such, they should already have accurate PSAP outage contact information on hand. Insofar as service providers already have up to date PSAP contact information, the Commission does not anticipate that compliance with this proposed requirement would present an incremental cost.

28. The Commission also notes that in November 2019, the NRSC Task Force approved standard operating procedures for updating PSAP contact information in a centralized PSAP contact database. In that document, the Task Force suggested that a centralized database would potentially relieve service providers of the need to maintain their own internal processes and responsibilities to work independently with each 911 authority. Subsequently, in October 2020, the NRSC noted efforts by public safety organizations such as NENA to develop a PSAP contact database. The NRSC stated that to encourage broad use of a PSAP contact information database, it "would need to be made available at little or no cost" for service providers. The NRSC also expressed concerns regarding data integrity and who would be responsible for updating contact

information. As such, the NRSC argued that industry adoption of such a database could prove challenging due to “the potential for liability associated with reliance on the database.”

29. The Bureau sought comment on the NRSC letter in December 2020. 86 FR 4074. In response, USTelecom called a PSAP contact information database “critically important for industry and PSAP coordination during emergencies.” NENA, which operates a voluntary PSAP registry service, stated that there is an “immediate need for an authoritative service that can provide contact information for PSAPs during emergencies.” APCO continued its support of a PSAP contact information database and urged the Commission to require service providers to establish and maintain a secure two-way contact information database. These comments indicate strong interest in a PSAP contact information database to facilitate reliable and rapid communication between service providers and PSAPs in an emergency.

30. Therefore, the Commission seeks comment on whether a mandatory PSAP contact information database accessible to and updated by originating and covered 911 service providers, as well as PSAPs, would warrant the Commission adopting alternative requirements other than those proposed above. The Commission seeks comment on the contours of such a database.

31. As a threshold question, the Commission asks how such a database would be administered. Should the Commission, as APCO International suggests, require service providers to host and operate the database? Are originating service providers and covered 911 service providers already participating in the development of a centralized PSAP contact database? The Commission notes the efforts of wireless carriers previously to establish the National Emergency Address Database (NEAD) to facilitate provision of 911 dispatchable location information for wireless callers. 80 FR 45897. However, wireless carriers notified the Commission that they had abandoned the NEAD after failing to secure necessary agreements with other entities. The Commission notes further the commitment of several wireless provider signatories to the Wireless Resiliency Cooperative Framework (Framework) to “establish[] a provider/PSAP contact database” to enhance coordination during an emergency, the existence of

which may mitigate the costs of creating a PSAP contact information database, particularly for those wireless provider signatories. 78 FR 69018. What particular lessons learned may be relevant for a similar service provider-operated PSAP contact information database? The Commission seeks comment on the utility of a database developed, owned, and operated by both originating and covered 911 service providers.

32. The Commission also seeks comment on how such a database would be funded and how such a funding mechanism would impact smaller service providers. As noted below, charging PSAPs and public safety entities for access to the database could inhibit PSAP participation in the database, which would be inconsistent with the Commission's stated goal of enhancing public safety. What funding mechanisms would work for such a database? How much would the creation and maintenance of such a PSAP contact information database cost for initial setup? Given that many service providers already maintain updated PSAP contact information, the Commission seeks comment on the ease and costs of transitioning from many independent databases to a unified database. What would the recurring costs of maintaining and updating a PSAP contact information database be? While such a database would appear to provide certain informational benefits, how significant would these benefits be in practice? The Commission also asks commenters to describe these (or any other) potential benefits with specificity.

33. The Commission is especially interested in how a PSAP contact information database would best be kept current and accurate, as well as where the responsibility for updating and maintaining the database would lie. The Commission notes that the utility of a PSAP contact information database is dependent upon the accuracy of the information it contains. The Commission consequently seeks comment on how best to ensure the reliability and integrity of the data contained therein. For example, NENA's PSAP registry is free of charge for PSAPs. The Commission seeks comment on whether allowing PSAPs to participate free of charge will enhance the accuracy of PSAP contact information in the database. Furthermore, the

Commission seeks comment on whether users and creators of a PSAP contact information database should be prohibited from using that information for any other purpose not related to public safety or maintenance of the database. The Commission seeks comment on whether and how frequently service providers and PSAPs would update their own information in the database. Would the operator of the database need to regularly validate this information on a monthly or annual basis? The Commission seeks comment on the frequency of data validation necessary to ensure the integrity and accuracy of the database.

34. If service providers elect to have a third party operate the PSAP contact information database, the Commission seeks comment on what possible liability issues could arise from such a third-party database. If the failure of a service provider to notify a PSAP of an outage were due to inaccurate information in the database, who would the potential liable parties be? Several commenters argue that service providers should be shielded from liability for reliance upon information provided by the PSAP contact information database. The Commission seeks comment on whether such a safe harbor would encourage or inhibit use of the PSAP contact information database. Would such an effort help to reduce the costs of compliance with this proposal? Further, rather than establishing a safe harbor rule, would service provider liability concerns be more appropriately addressed through a requirement that service providers contracting with third party database operators require those operators to implement measures to ensure the accuracy of the third-party database that are at least as stringent as the measures that the service providers employ for their internal databases?

B. Customer Notification of 911 Outages

35. When an outage affects 911 service, dialing “9-1-1” may not always connect someone in need of emergency services with a PSAP, which may lead to devastating effects. However, those in need of emergency services often do not know when 911 services are down, only that their emergency calls remain unanswered. Therefore, to increase public awareness of 911 availability and to help protect the public’s safety when 911 services are disrupted, the

Commission proposes to require service providers to notify their customers of 911 outages within 60 minutes of determining there is an outage by providing material information on their websites and Internet-related applications.

36. Notification Breadth. The Commission proposes that cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers notify their customers when there is an outage that affects the availability of 911 voice or text-to-911 services for their customers. This includes both originating service providers and covered services providers, as they each provide an essential link in the chain to ensure completion of a 911 call. Because 911 unavailability due to an outage on a covered 911 service provider's network affects originating service providers as well, the Commission proposes to require both originating service providers and covered 911 service providers supply public notification of 911 unavailability to their customers. The Commission seeks comment on this proposal.

37. Notification Threshold. The Commission proposes that service providers notify their customers of a 911 outage that meets the NORS reporting thresholds and also prevents emergency callers on their networks from reaching a PSAP by dialing or texting 9-1-1. The Commission believes that such a threshold would minimize potential confusion about 911 availability and ensure that the public is only notified of outages that materially affect emergency callers. The Commission seeks comment on this public notification threshold. For example, if 911 calls are delivered but without audio for one of the parties (either caller or 911 call taker), should this be considered 911 unavailability? If callers cannot reach emergency services by dialing 9-1-1 but text-to-911 still operates, should this constitute 911 unavailability? And should a situation where text-to-911 is unavailable due to a network disruption but traditional voice calls to 911 are possible constitute 911 unavailability? As consumers with disabilities may be more likely to text rather than call 911, are there additional considerations in determining 911 unavailability? The Commission seeks comment on whether this threshold is too narrow, and if so, which additional types of disruptions to 911 services should trigger public notification. For

example, should a loss of transmission of ALI or ANI prompt public notification? The Commission also seeks comment on whether this threshold is too broad.

38. *Notification Timing and Frequency.* The utility of notifications is inextricably tied to the service provider's ability to deliver timely and accurate notifications. The Commission proposes a similar arrangement for public notifications as presented in § 4.9(h) of the Commission's rules for PSAPs: the Commission proposes that customer notifications commence within 60 minutes of the service provider discovering that the outage has resulted in the unavailability of 911 service. 47 CFR 4.9(h). With this proposal, the Commission seeks to balance the import of providing the public with the timely ability to access emergency services with the necessity of providing accurate outage information. The Commission understands that when 9-1-1 is unavailable, both service providers and PSAPs are working diligently to make sure the public can reach emergency services. The Commission seeks comment on this proposal. The Commission maintains that such an initial notification of 911 unavailability will increase the likelihood that those in need will understand that 9-1-1 is unavailable and attempt other methods to receive necessary emergency assistance. In addition, similar to the proposal regarding PSAP notification timing discussed above, the Commission proposes that service providers update public notices with material information regarding the estimated time of 911 restoration as soon as possible. The provision of updates to the public will help redirect emergency callers back to 9-1-1 and ensure that PSAPs may return to normal call-taking status. The Commission seeks comment on this proposal. Is 60 minutes the appropriate threshold? Will this timing obligation interfere with service providers' ability to provide notice and support to PSAPs? Are there other burdens that this timing proposal creates? How can they be mitigated? Conversely, is this timeframe too lengthy to provide meaningful information to the public?

39. *Notification Content.* The Commission proposes to require that service providers create public notifications that include the following: (1) a statement that there is an outage affecting 911 availability, (2) a description of the geographic area where 911 callers may face

911 unavailability, (3) an estimated time that 911 service became unavailable, and (4) an estimate of when 911 services will be restored. The Commission further proposes that service providers be required to include alternative means to reach emergency services, such as alternative contact information, at the request of the PSAP, on a per outage basis. The Commission proposes that a service provider should contact the PSAP(s) affected by 911 unavailability as soon as possible after discovery of an outage, but no later than 30 minutes after discovery to determine what, if any, alternative means of contact the PSAP would like made publicly available for the duration of the incident. The Commission proposes these elements to ensure that public notifications are accurate and easily understood by end-users and are accessible for individuals with disabilities. The Commission believes these elements also will reduce potential confusion and avoid inadvertently increasing burdens on PSAPs. In this respect, a description of the geographic scope of 911 unavailability, for example, will ensure that only those affected by 911 unavailability use alternate means other than 911 to contact emergency services. For the same reasons, including the time at which 911 first became unavailable and the estimated time of restoration in notices will ensure end-users know when they should seek alternatives, updating consumers regarding restoration time will help redirect emergency callers back to 9-1-1, which in turn will help PSAPs return to normal operations. The Commission seeks comment on this proposal. Is the Commission including the right elements for effective public notification? Will those seeking emergency services find this information pertinent in their time of need? The Commission also seeks comment on best practices for describing geographic boundaries of affected areas. For example, a state's borders are frequently known but an outage affecting a smaller area, or an area spanning state borders, may be more difficult to accurately describe. At what fidelity and how should this information be conveyed? The Commission also seeks comment on the potential costs and benefits of this proposal.

40. The Commission also seeks comment on this proposal in light of the currently presumptively confidential treatment of outage reports and the recent adoption of a Report and

Order that provides direct access to NORS and Disaster Information Reporting System filings by certain public safety and emergency management agencies of the 50 states, the District of Columbia, Tribal nations, territories, and Federal Government, provided that they follow safeguards adopted by the Commission. NORS Information Sharing Report and Order.

Information reported to the Commission under its part 4 reporting rules is presumed confidential due to its sensitive nature to both national security and commercial competitiveness. The Commission proposes that a subset of this outage report information be made publicly available, and at a less granular level than what it provided to the Commission on a confidential basis, in order to advise PSAPs and consumers when 911 service is unavailable and to arrange for alternate methods for consumers to contact PSAPs. The Commission believes that this approach would save lives and improve emergency outcomes involving, for example, illness and injury, and that the benefits of disclosure far outweigh the increase in the risk of national security or commercial competitiveness harms. The Commission seeks comment on the relationship between the need for the confidentiality afforded reported part 4 outage information and the public's interest in 911 availability in times of critical need. Is there specific information that would be conveyed under this public notification proposal that could implicate national security or commercial competitiveness? How might the Commission modify the parameters of the proposed customer notification to address such concerns?

41. Given that network disruptions sometimes vary in duration, geographic scope, and intensity, the Commission seeks comment on whether and to what extent service providers can develop public notification content in partnership with PSAPs in advance of unplanned outages. The Commission also notes that PSAPs are best positioned to determine what contact information to disseminate to the public during a 911 outage and that PSAPs may wish to coordinate the message delivered by service providers with their own outreach via social media or other avenues. The Commission understands that in an outage affecting multiple PSAPs, any public notification will also need to include a geographic description of where callers may not be

able to reach emergency services by dialing 9-1-1 to prevent possible caller confusion and misdirected emergency calls. As such, the Commission seeks comment on how PSAPs and service providers collectively can best develop public notification information in advance of 911 unavailability.

42. *Notification Medium.* The Commission proposes to require service providers to post public notification of 911 outages prominently on their websites and Internet-based applications, such as provider-specific apps for mobile devices. This information should be quickly accessible, with one click, from the main page of a service provider's website (e.g., T-Mobile.com or Verizon.com), and be accessible for individuals with disabilities. The Commission believes that this will allow those seeking critical information on 911 unavailability during an emergency to obtain the information necessary to determine their next steps in procuring emergency services quickly without being inundated with information regarding 911 unavailability. Public notification in this manner may also avoid creating competing messaging with PSAPs that may choose to use affirmative outreach methods such as reverse 911 or other public notification systems to notify the public of a 911 outage. Because these require the consumer to take action, public notifications conveyed over websites and through mobile device apps do not actively alert the consumer like wireless emergency alerts and thus do not contribute to alerting fatigue, and may complement those active measures that may be utilized by local PSAPs.

43. The Commission acknowledges that there are many other methods to effectuate public notifications of disruptions to 911 availability: text messages, emails, phone calls, social media, and posting on service provider websites and applications all provide near-real-time opportunities to update the public on how best to reach emergency services. Each has its pluses and minuses. For example, while they do not require affirmative action by the consumer, text messages are undeliverable to traditional wireline numbers and service providers may not have email addresses for customers. In addition, the Commission is concerned that methods of public

notification requiring broadcasting 911 unavailability broadly may engender a lack of confidence in the ability to reach emergency services by dialing 9-1-1. The Commission believes that public confidence in 911 is critical; indeed, the Commission has long sought to buttress the public's confidence in 911. 80 FR 3191. Consequently, the Commission believes that this proposal will best allow those seeking emergency assistance to determine alternative means to reach emergency services. The Commission seeks comment on this assessment. Would public confidence in 911 decrease in the face of too many alerts regarding 911 unavailability? Conversely, would greater transparency alleviate concerns that 911 services may be unavailable without the public's knowledge? Are there benefits to other means of notification, such as text messaging, automated phone calls, or email, that the Commission has overlooked and that merit their inclusion? Would other means of notification more effectively reach communities where there is limited internet connectivity, for example, on some Tribal lands? Further, in areas where a significant portion of the population does not speak English as a primary language, should the Commission require service providers to include multiple language options for the public notification?

44. In addition to accessible public notification on originating and covered 911 service provider websites, the Commission envisions that those seeking additional information would be able to input their location by address into their provider's website (or similar mobile app) and in turn receive more specific information on the geographic scope of the outage. The Commission notes that Verizon already provides "Network Notifications" in the My Verizon App, which provide Verizon Wireless customers with information on network disruptions and when restoration is expected. The Commission seeks comment on this proposal for how customers might obtain additional information and how it might be implemented in a way that preserves confidence in 9-1-1, provides value to those in need, and is minimally burdensome on originating and covered 911 service providers.

45. Finally, the Commission seeks comment on the costs and benefits of this proposal. Is there an affordable alternative method of public notification that balances the needs of the public to know whether dialing 9-1-1 will reach emergency services with the Commission's commitment to preserving public confidence in 911? To what extent have service providers already implemented a notification framework for other alerts and important announcements that would reduce any website development costs associated with this proposal? Alternatively, are there other methods of public notifications, such as using text messages or automated phone calls, which would be likely to reach a larger proportion of service providers' customers and those customers who may have limited internet connectivity? The Commission seeks comment on the benefits and costs of implementing these alternatives.

C. Updating the Commission's 911 Network Reliability Framework

46. Covered 911 service providers must certify annually to the Commission that they perform three reasonable measures to promote the reliability of their networks: ensure circuit diversity, maintain backup power at central offices, and diversify network monitoring. 47 CFR 9.19(b). In 2018, the Bureau asked commenters to address these 911 reliability rules' effectiveness and whether they "remain technologically appropriate, and both adequate and necessary to ensure the reliability and resiliency of 911 networks." 2018 911 Reliability Public Notice. The record contains widespread support for the 911 reliability rules, with commenters stating that the Commission's three reasonable measures are appropriate and strengthen 911 network reliability and resiliency. Accordingly, the Commission finds that its 911 reliability rules continue to be technologically appropriate and both adequate and necessary, and the Commission does not intend in this proceeding to revisit or reopen those requirements, except as to the timing of the certification as noted herein.

47. On this point, commenters differ regarding the appropriate frequency for filing the required certification. Some commenters state that the current, annual certification remains necessary to promote awareness of 911 reliability issues for covered 911 service providers'

senior management and employees. Others state that less frequent certification could make the provision of reliable 911 service more cost-effective by decreasing the burden on providers without affecting 911 network resiliency. The Commission seeks comment on whether, as some commenters suggest, less frequent certification would be an effective means of reducing compliance burdens, without sacrificing its benefits. The Commission emphasizes that it would not be making any changes to the fundamental obligations underlying network reliability certifications—namely, the requirements to ensure circuit diversity, maintain backup power at central offices, and diversify network monitoring. Would increasing the time between 911 network reliability certifications—such as requiring only biennial certifications—affect public safety outcomes? If so, could the Commission offset any potential risk that less frequent certification would affect public safety by requiring covered 911 service providers to submit certifications when they perform a “material network change” during the preceding year? If so, how should the Commission define a “material network change?” For those advocating less frequent certifications, what would the cost savings be? The Commission also asks for costs and benefits of any offered alternatives.

48. The Commission also proposes to require covered 911 service providers that have ceased to operate as such—i.e., they no longer provide covered 911 services, or no longer operate one or more central offices that directly serve a PSAP—to notify the Commission via an affidavit in which the service provider would explain the basis for its change in status. 47 CFR 9.19(a)(4)(i). The Commission proposes that, should a service provider no longer provide covered 911 services, the service provider file an affidavit through the Commission’s online portal during the timeframe when the portal is open for annual reliability certifications. The Commission notes that, in 2020, the Commission opened the 911 reliability portal for certification filing from July 30 through October 15. Public Safety and Homeland Security Bureau Announces Availability of 911 Reliability Certification System for Annual Reliability Certifications, PS Docket Nos. 13-75 and 11-60, Public Notice, 35 FCC Rcd 8082 (PSHSB

2020). The Commission seeks comment on the appropriateness of linking the timeframe to file such an affidavit with the period that the portal is open. Is the 911 Reliability System the correct place for filing? The Commission proposes these measures to ensure that the Commission does not expend time and resources to investigate why a covered 911 service provider has failed to file its 911 certification in a timely manner, when the reason is simply because the provider is no longer a covered 911 service provider and is therefore no longer required to file the required certifications. The Commission expects few companies to end their covered 911 service operations from year to year and expect such filing costs would be minimal. The Commission believes that the benefits, however, will be much greater. First, the Commission will be able to more quickly determine whether a service provider is a covered 911 service provider before engaging in an investigation. Second, any service provider that has ceased its qualifying covered 911 operations and filed with the Commission that it has done so will not have to encounter an investigation into whether the service provider failed to file its 911 reliability certifications. The Commission seeks comment on these proposals, their costs and benefits, as well as on potential alternatives for service providers to supply this information to the Commission.

D. Administrative Line Definition

49. The Commission defines a covered 911 service provider in part as an entity that “operates one or more central offices that directly serve a PSAP. For purposes of this section, a central office directly serves a PSAP if it . . . is the last service-provider facility through which a 911 trunk or administrative line passes before coming to a PSAP.” 47 CFR 9.19(a)(4)(i)(B). Under the current rules, a service provider that provides phone service to a PSAP but does not provide specific 911-related services to the PSAP is considered a covered 911 service provider due to its provision of an “administrative line.” Neither the Commission’s rules nor its precedent presently define the term “administrative line” for purposes of the Commission’s 911 reliability rules. The Commission proposes to define “administrative line” for the purpose of its 911 reliability framework as a business line or line group that connects to a PSAP but is not used as

the default or primary route over which 911 calls are transmitted to the PSAP. The Commission seeks comment on this proposed definition. The Commission anticipates that this clarification will simplify service providers' determination of whether they are an originating service provider or a covered 911 service provider. The Commission believes that this, in turn, will reduce the potential that a service provider fails to file required 911 reliability certifications. This proposal appears to only accrue benefits, but the Commission nevertheless seeks comment on its potential benefits and costs. The Commission seeks comment on this analysis and asks whether there are any potential ramifications from this proposal of which the Commission is not aware. Commenters suggesting alternatives to this proposal should also include comment on anticipated costs and benefits.

E. Codifying Adopted Rules

50. In 2016, the Commission adopted a Report and Order that modernized the Commission's network outage reporting rules. 81 FR 45055 (2016 Part 4 Order). One of those requirements, however, was not at the time codified in the Code of Federal Regulations. The part 4 rules exempt satellite and terrestrial wireless providers from reporting outages that potentially affect airports, and the 2016 Part 4 Order "extend[ed] that exemption to all special offices and facilities," and "extend[ed] the wireless exemption for satellite and terrestrial wireless carriers to all special offices and facilities." 47 CFR 4.9(c)(2)(iii), (e)(1)(iv); 2016 Part 4 Order. The Commission proposes to codify these changes to its rules in the Code of Federal Regulations, and seeks comment on this proposal.

F. Compliance Timeframes

51. The Commission proposes to require originating service providers and covered 911 service providers to comply with any adopted rules that it has proposed to harmonize PSAP outage notification requirements and ensure the receipt by PSAPs of more actionable 911 outage information by April 1, 2022. The Commission believes that the revisions proposed in this document constitute only minor changes to existing procedures and therefore believe that the

time between adoption of the rules, as well as subsequent Office of Management and Budget (OMB) approval, and the compliance date would be sufficient. The Commission seeks comment on this assessment. The Commission seeks comment on whether allowing additional time for small- and medium-sized businesses to comply with the requirements the Commission proposes in this document would serve the public interest.

52. The Commission proposes to require originating service providers and covered 911 service providers to update and maintain accurate contact information for officials designated to receive outage notifications at each PSAP in areas they serve no later than April 1, 2022. While the Commission expects that many originating service providers and covered 911 service providers will already have accurate contact information on hand for most if not all of the PSAPs in their service areas, the Commission seeks to allow sufficient time for them to further develop and implement those procedures pursuant to the requirements that the Commission proposes in this document (for example, by developing and transmitting an e-mail survey to their the best-known PSAP e-mail address(es), following up as appropriate, and identifying and remedying any gaps in their PSAP contact lists). The Commission seeks comment on this approach.

53. In addition, the Commission proposes that its 911 unavailability public notification framework, which would require originating and covered 911 service providers to provide their customers with notification of certain disruptions to 911 service that result in the unavailability of 911 to reach emergency services, take effect no later than June 1, 2022. The proposal regarding contact information, discussed above, will give service providers the opportunity to further coordinate with PSAPs to determine, in advance of disruptions to 911 availability, any alternative contact information that the PSAPs wish to convey to the public. The Commission anticipates that service providers may need more time to develop a location-based webpage to provide public notification of 911 unavailability than in developing systems to update and maintain accurate contact information for official designated to receive outage notifications. The Commission seeks comment on this proposal.

G. Benefits and Costs

54. For all foregoing proposals, the Commission estimates the costs that its proposed rules would impose on all service providers of approximately a \$2,398,000 one-time cost and a \$4,557,000 annually recurring cost. The Commission tentatively concludes that the benefits of PSAP outage notification will be well in excess of these costs. Public safety benefits, however, are difficult to quantify. This difficulty in quantification, however, does not diminish in any way the benefits of providing outage information to PSAPs. The Commission finds that the benefits attributable to outage notification are substantial and may have significant positive effects on the abilities of PSAPs to safeguard the health and safety of residents during outages that threaten residents' ability to reach 911. In particular, the Commission expects that both the PSAP notification proposals and the customer notification proposals will provide the information necessary to allow consumers to reach emergency services more quickly during an outage potentially affecting 911, thus reducing first responder times and improving public health and safety. The Commission urges commenters to supply detailed examples of likely benefits and estimates of their value where possible.

55. The Commission's one-time cost estimate of \$2,398,000 consists of \$50,000 to create an e-mail survey to biannually solicit PSAP contact information, \$99,000 to update PSAP outage notification templates, and \$2,249,000 to implement a website-based framework that companies can use to notify their customers about outages. The Commission's estimate that annually recurring costs of \$4,557,000 consist of \$1,258,000 for notifying PSAPs of outages that potentially affect them pursuant to the standards that the Commission proposes in this document, \$197,000 for identifying PSAPs that could potentially be affected by a service outage, \$197,000 for soliciting from PSAPs appropriate contact information for outage notification, and \$2,905,000 to publicly notify customers of 911 unavailability on company websites. The Commission seeks comment on all these estimates. At this time, the Commission is unaware of alternative approaches with lower costs that would still ensure that PSAPs receive timely

information about outages that impact their service areas and ask commenters to provide detailed cost estimates. The Commission is interested in possible alternatives from commenters, however, and seeks comment. Any suggestions of alternative approaches should include both cost and benefit estimates.

IV. PROCEDURAL MATTERS

56. Ex Parte Presentations. The proceedings shall be treated as “permit-but-disclose” proceedings in accordance with the Commission’s *ex parte* rules. 47 CFR 1.1200 through 1.1216. Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter’s written comments, memoranda, or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule §1.1206(b). In proceedings governed by rule §1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g. .doc, .xml, .ppt, searchable .pdf). Participants in the proceeding should familiarize themselves with the Commission’s *ex parte* rules.

57. *Comment Filing Procedures.* Pursuant to the Commission's rules, interested parties may file comments and reply comments on or before the dates indicated on this notice of proposed rulemaking. Comments and reply comments may be filed using the Commission's Electronic Comment Filing System (ECFS). 47 CFR 1.415, 1.419; 63 FR 24121.

- **Electronic Filers:** Comments may be filed electronically using the Internet by accessing the ECFS. <http://apps.fcc.gov/ecfs>.
- **Paper Filers:** Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 45 L St. NE, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 45 L St. NE, Washington DC 20554.

58. **People with Disabilities.** To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an email to fcc504@fcc.gov or call the Consumer and Governmental Affairs Bureau at 202-418-0530 (voice), or 202-418-0432 (tty).

59. **Regulatory Flexibility Act.** The Regulatory Flexibility Act of 1980, as amended (RFA), requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.” 5 U.S.C. 601 through 12, as amended by Pub. L. 104-121. Accordingly, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning the possible significant economic impact on small entities of the policies and rules contained in this NPRM. 5 U.S.C. 603(b)(3).

60. **Initial Paperwork Reduction Act Analysis.** This NPRM may contain proposed new and modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995 (PRA). Pub. L. 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), the Commission seeks specific comment on how it might “further reduce the information collection burden for small business concerns with fewer than 25 employees.”

61. **Further Information.** For further information, contact Beau Finley, Attorney-Advisor, Cybersecurity and Communications Reliability Division, Public Safety and Homeland Security Bureau, at 202-418-7835, or via e-mail at Robert.Finley@fcc.gov.

V. INITIAL REGULATORY FLEXIBILITY ANALYSIS

62. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this NPRM. 5 U.S.C. 603. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on this NPRM.

A. Need for, and Objectives of, the Proposed Rules

63. In this proceeding, the Commission takes steps to improve the reliability and resiliency of telecommunications networks nationwide and 911 networks specifically so that the American public can continue to reach emergency services without undue delay or disruption. In particular, the NPRM proposes and seeks comment on measures to harmonize the Commission's Public Safety Answering Points (PSAP) outage notification rules such that all service providers must notify all potentially affected PSAPs of outages in the same manner and with more specific information. Furthermore, the NPRM seeks comments on requirements that originating service providers and covered 911 service providers inform their customers when 911 is unavailable to them due to disruptions to provider networks. These proposals would apply to all originating cable, satellite, wireless, wireline, interconnected VoIP service providers ("originating service providers") as well as to all covered 911 service providers and should make the nation's 911 service more reliable and the public safer, while striking an appropriate balance between costs and benefits of such regulation. The NPRM also proposes to codify rules adopted in 2016 extending the exemption of satellite and terrestrial wireless providers from reporting outages potentially affecting special offices and facilities. 2016 Part 4 Order.

B. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

64. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." 5 U.S.C. 601(6). In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act." 5 U.S.C. 601(3). A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA. 15 U.S.C. 632. Below is a list of such entities.

- Interconnected VoIP services;
- Wireline providers;
- Wireless providers – fixed and mobile;
- Satellite Service Providers; and
- Cable Service Providers.

C. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

65. The NPRM primarily proposes revisions to PSAP outage notification requirements that may impose new or additional reporting, recordkeeping, and/or other compliance requirements on small entities and entities of all sizes that provide 911 services. Specifically, the NPRM proposes (1) to harmonize the rules under which originating service providers and covered 911 service providers notify PSAPs of outages; (2) to require originating service providers and covered 911 service providers to provide more specific and uniform material information to PSAPs in outage notifications as defined in § 4.9(h)(6) of the Commission's rules, as the Commission proposes to revise them; (3) to require originating service and covered 911 service providers to annually identify the PSAPs that they serve and to elicit outage contact information from them; (4) to require said providers to supply the public with timely notification of 911 unavailability; and (5) to require covered 911 service providers notify the Commission within an announced timeframe that they no longer provide covered 911 services to PSAPs. The NPRM also proposes the codification of an amendment to a rule that the Commission adopted in 2016. Specifically, the NPRM proposes to codify the extension of the exemption of satellite and terrestrial wireless providers from reporting outages potentially affecting special offices and facilities. 2016 Part 4 Order.

66. The Commission is not currently in a position to determine whether, if adopted, the proposed rules in the NPRM will require small entities to hire attorneys, engineers, consultants, or other professionals. The Commission notes, however, that service providers

already perform measures that contribute to their ability to comply with these requirements, and thus would likely ease the burden of compliance with these proposals, if adopted. For example, some service providers may already offer PSAPs follow-up notifications if additional material information becomes available. In addition, many service providers are likely to already have documented procedures for notifying PSAPs of outages that potentially affect them, and for those that do not, Alliance for Telecommunications Industry Solutions (ATIS) Network Reliability Steering Committee (NRSC) Task Force documents can serve as a useful guide. Furthermore, many service providers already regularly elicit PSAP outage contact information.

67. As discussed in the NPRM, the Commission estimates the timeframe and incremental cost for originating service providers to notify potentially affected PSAPs about 911 outages within the same timeframe, by the same means, and with the same frequency that covered 911 service providers would be 30 minutes at a rate of \$34 per hour per notification (initial and follow-up) per outage. The actual cost that originating service providers would incur to comply with this requirement may be substantially lower than the Commission's estimate because, among other things, some originating service providers service providers may have automated their PSAP outage notification processes. Similarly, the Commission estimates the one-time cost for originating service providers and covered 911 service providers to report the same specific, actionable content in their PSAP outage notifications as requiring 60 minutes at a one-time cost of \$34 per hour per provider. This activity would allow a provider to incorporate additional informational elements into their existing mechanisms for gathering, approving, and transmitting information about 911 outages to PSAPs. Likewise, the Commission anticipates the actual cost that originating service providers and covered 911 service providers would incur to comply with this proposal, if adopted, may be substantially lower than the Commission's estimate because the estimated number of service providers that would be required to comply is conservatively broad. In the NPRM, the Commission considers whether originating and covered 911 service providers also should offer PSAPs graphical interface data describing the geographic

area potentially affected by outages. In addition, the Commission considers whether to require originating and covered 911 service providers to notify PSAPs of outages that do not meet the Commission's reporting thresholds but could potentially affect 911 service. The Commission anticipates that the record will reflect variation in geographical interface capabilities and proposed PSAP notification thresholds, and thus anticipate that the estimated costs to service providers will also vary.

68. In the NPRM, the Commission also discusses the timeframe and costs for originating service providers and covered 911 service providers to develop and implement procedures for gathering, maintaining, and updating PSAP contact information. The Commission estimates that the cost for originating service providers and covered 911 service providers to maintain up-to-date contact information for PSAPs in areas they serve would take 30 minutes with a one-time cost of \$34 per hour per provider to develop a mechanism to elicit PSAP contact information. Working internally and with other network operators to identify PSAPs that could potentially be affected by an outage would take an estimated 120 minutes with an annual recurring rate of \$34 per hour per provider. Likewise, eliciting the appropriate contact information for outage notification using the service provider's chosen PSAP contact information collection mechanism would take an estimated 120 minutes with an annual recurring cost of \$34 per provider. Compliance with this proposed requirement may be substantially lower than the Commission's estimates because the Commission's rules already require these service providers to notify PSAPs of 911 outages and, as such, they should already have accurate PSAP outage contact information. As discussed in the NPRM, standard operating procedures for updating PSAP contact information in a centralized PSAP contact database was approved by the NRSC Task Force in November 2019. To the extent that service providers already have up to date PSAP contact information, the Commission does not anticipate that compliance with this proposed requirement would impose any incremental costs.

69. The estimated costs for service providers to notify their customers about 911 outages by providing material information on their websites consist of a one-time cost of \$778 per provider to implement a website-based outage notification framework and an annually recurring expected cost of \$1,005 per provider to notify customers of outages that materially affect 911 using that framework. The one-time cost consists of the sum of a web developer's hourly rate (\$60) multiplied by 10 hours to set up an outage notification framework and a general and operations manager's hourly rate (\$89) multiplied by 2 hours for project oversight. In calculating the one-time cost, the Commission is aware that certain nationwide or large regional service providers may have more sophisticated websites with multiple brands that would require more time to implement an outage notification framework. The Commission also notes however that most of these providers will have already implemented a notification framework for other alerts and important announcements that would reduce website development costs.

70. Small entities are also likely to already have an alert notification framework in place and would likewise have lower costs than estimated herein. Similarly, the Commission believes that small entities' annual recurring costs to notify customers of outages that materially affect 911 will likely be less than the Commission's estimates since affected service providers need only report outages that materially affect 911. Additionally, small entities will also incur lower costs where the hourly rates for web developers, and general and operations managers are lower than those used in Commission estimates. In the NPRM, the Commission seeks comments on its estimates and on alternative affordable methods of public notification that balance the needs of the public to know whether dialing 9-1-1 will reach emergency services with the Commission's commitment to preserving public confidence in 911.

71. Based on the above discussion, the Commission does not believe that the costs and/or administrative burdens associated with any of the proposal rule changes will unduly burden small entities. Furthermore, the Commission believes the value of the public safety benefits generated by the Commission's PSAP notification proposals outweigh the estimated

costs. The Commission anticipates that the proposed rule changes will enable PSAPs to accelerate the public's ability to reach 911 call takers during an outage, reducing the probability of lives lost during any such outage. The Commission also believes that these proposals could generate an additional, incremental benefit by helping people reach 911 call takers more quickly and by reducing first responder response times.

72. Notwithstanding the foregoing, to the extent that service providers do not already elicit and refresh contact information for individuals designated by the PSAP to receive outage notifications, the Commission seeks to allow sufficient time for them to develop procedures for doing so, including, for example, by developing an e-mail survey to transmit to their the best-known PSAP e-mail address(es) or a secure web portal. In the discussion of the proposals in the NPRM, the Commission has also sought comments from the parties in the proceeding and requested cost and benefit information which may help the Commission identify and evaluate relevant matters for small entities.

D. Steps Taken to Minimize the Significant Economic Impact on Small Entities and Significant Alternatives Considered

73. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities. 5 U.S.C. 603(c)(1) through (4).

74. In the NPRM, the Commission continues to facilitate the reliability of the 911 system and meet its public safety obligations for oversight of the integrity of the 911 communications infrastructure by proposing measures to ensure that PSAPs can expect

consistent and timely outage notifications whenever there is an outage that potentially affects 911 service. While doing so, the Commission is mindful that small entities and other 911 service providers may incur costs should the proposals the Commission makes, and the alternatives upon which the Commission seeks comment in the NPRM, be adopted.

75. The Commission has taken several steps that could reduce the economic impact for small entities. First, the elements for the proposed PSAP outage notifications largely track the NRSC Task Force's template. Therefore, to the extent small entities have or will implement the ATIS NRSC Task Force's template, compliance with these proposals should not impose significant additional costs. Next, the Commission proposes an approach that establishes a baseline expectation of shared information while otherwise preserving flexibility for service providers to determine the means by which they present this information to PSAPs and seek comment on the cost this flexible approach. Similarly, the Commission does not specify the particular procedures that service providers must develop or follow to elicit PSAP contact information. The Commission seeks comment on the costs and benefit of implementing and maintaining these procedures.

76. To increase public awareness of 911 availability and to help protect the public's safety when 911 services are disrupted, the Commission proposes to require service providers to notify their customers of 911 outages at the request of affected PSAPs within 60 minutes of determining there is an outage by prominently posting notification of material information on the main page of their websites and internet-related applications. While the Commission recognizes that other alternatives such as text messages, email messages, and phone calls, can all provide near-real-time methods to update the public on how best to reach emergency services, the Commission believes requiring posting of notification via websites and internet-related applications will minimize the potential for consumer confusion and alerting fatigue and is therefore in the public interest. The Commission also believes this means of communication will not be a very resource intensive or costly method for small entities and other service providers to

provide notice to its customers as compared to for example, text messages which are not deliverable to traditional wireline numbers, and email addresses which service providers may not have for their customers. The Commission seeks comment in the NPRM on this approach and requiring other methods of notification.

77. To strike an appropriate balance between maintaining 911 network reliability and public awareness of 911 unavailability as well as associated paperwork burdens, the Commission seeks comment on whether it should change the frequency with which covered 911 service providers are required to file 911 reliability certifications. The Commission also seeks comment on any steps that it has not already proposed that it can take to prevent the costs of these proposals from becoming unduly burdensome for small and medium-sized businesses. Specifically, the NPRM seeks comment on whether it would serve the public interest to allow additional time for small and medium-sized businesses to comply with the requirements the Commission proposes in this document.

78. In response to the Commission's request for comments in the NPRM, the Commission invites parties to propose alternatives to the extent that these proposals will impose new obligations on small entities. Specifically, the Commission would like to see comments address whether small entities would benefit from different reporting requirements or timetables that take into account their limited resources; simplification or consolidation of reporting requirements for small entities; or an exemption from a requirement. the Commission invites commenters to (1) identify which proposed requirements are particularly difficult or costly for small entities and how different, simplified, or consolidated requirements would address those difficulties, and (2) if any modifications or exemptions from requirements are sought, discuss what would be the effect on public safety and the reliability of 911 operations.

79. The Commission expects to consider more fully the economic impact on small entities following its review of comments filed in response to the NPRM, including the costs and benefits information. The Commission's evaluation of the comments filed in this proceeding

will shape the final alternatives it considers, the final conclusions it reaches, and any final actions it ultimately takes in this proceeding to minimize any significant economic impact that may occur on small entities.

E. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

80. None.

F. Legal Basis

The proposed action is authorized pursuant sections 1, 4(i), 4(j), 4(o), 201(b), 214(d), 218, 251(e)(3), 301, 303(b), 303(g), 303(r), 307, 309(a), 316, 332, 403, 615a-1, and 615c of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 154(j) 154(o), 201(b), 214(d), 218, 251(e)(3), 301, 303(b), 303(g), 303(r), 307, 309(a), 316, 332, 403, 615a-1, and 615c.

List of Subjects

47 CFR Part 4

Airports, Communications common carriers, Communications equipment, Reporting and recordkeeping requirements, Telecommunications.

47 CFR Part 9

Communications, Communications common carriers, Communications equipment, Internet, Radio, Reporting and recordkeeping requirements, Satellites, Security measures, Telecommunications, Telephone.

FEDERAL COMMUNICATIONS COMMISSION

Marlene Dortch,
Secretary.

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR parts 4 and 9 as follows:

PART 4 – DISRUPTIONS TO COMMUNICATIONS

1. The authority citation for part 4 continues to read as follows:

Authority: 47 U.S.C. 34-39, 151, 154, 155, 157, 201, 251, 307, 316, 615a-1, 1302(a), and 1302(b); 5 U.S.C. 301, and Executive Order no. 10530.

2. In § 4.9:

- a. Revise paragraph (a)(4);
- b. Add the word “or” at the end of paragraph (c)(2)(ii);
- c. Remove paragraph (c)(2)(iii);
- d. Redesignate paragraph (c)(2)(iv) as paragraph (c)(2)(iii) and revise newly redesignated paragraph (c)(2)(iii);
- e. Add the word “or” at the end of paragraph (e)(1)(iii);
- f. Remove paragraph (e)(1)(iv);
- g. Redesignate paragraph (e)(1)(v) as paragraph (e)(1)(iv) and revise newly redesignated paragraph (e)(1)(iv); and
- h. Revise paragraphs (f)(4), (g)(1)(i), and (h).

The revisions read as follows:

§ 4.9 Outage reporting requirements - threshold criteria.

(a) * * *

(4) Potentially affects a 911 special facility (as defined in §4.5(e)), in which case they also shall notify the affected 911 facility in the manner described in paragraph (h) of this section. Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial

Communications Outage Report to the Commission. Not later than 30 days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of §4.11.

* * * * *

(c) * * *

(2) * * *

(iii) Potentially affecting a 911 special facility (as defined in §4.5(e)) the affected 911 facility in the manner described in paragraph (h) of this section.

* * * * *

(e)(1) * * *

(iv) That potentially affects a 911 special facility (as defined in §4.5(e)), in which case they also shall notify the affected 911 facility in the manner described in paragraph (h) of this section.

* * * * *

(f) * * *

(4) Potentially affects a 911 special facility (as defined in §4.5(e)), in which case they also shall notify the affected 911 facility in the manner described in paragraph (h) of this section. Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than 30 days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of §4.11.

(g) * * *

(1) * * *

(i) Within 240 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that potentially

affects a 911 special facility (as defined in §4.5(e)), in which case they also shall notify the affected 911 facility in the manner described in paragraph (h) of this section; or

* * * * *

(h) *911 Special facility outage notification.* All cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers (as defined in 47 CFR 9.19(a)(4)) shall notify a 911 special facility any official who has been designated by the affected 911 special facility as the provider's contact person(s) for communications outages at the facility of any outage that potentially affects that 911 special facility (as defined in § 4.5(e)) in the following manner.

(1) *Appropriate contact information.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers shall annually identify and maintain up-to-date contact information appropriate for 911 outage notification for each 911 special facility that serves areas that the service providers serve.

(2) *Timing of notification.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers shall provide a 911 outage notification to a potentially affected 911 special facility as soon as possible, but no later than within 30 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage that potentially affects a 911 special facility, as defined in § 4.5(e).

(3) *Means of notification.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers' 911 outage notifications must be transmitted by telephone and in writing via electronic means in the absence of another method mutually agreed upon in advance by the 911 special facility and the covered 911 service provider.

(4) *Content of notification.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers' 911 outage notifications must convey all available material information about the outage. For the purpose of this paragraph (h), "material information" includes the following, where available:

- (i) The name of the cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider offering the notification;
- (ii) The name of the cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider(s) experiencing the outage;
- (iii) The date and time when the incident began (including a notation of the relevant time zone);
- (iv) The types of communications service(s) affected;
- (v) Geographic area affected by the outage;
- (vi) A statement of the notifying cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider's expectations for how the outage may affect the 911 special facility (*e.g.*, dropped calls or missing metadata);
- (vii) Expected date and time of restoration, including a notation of the relevant time zone;
- (viii) The best-known cause of the outage;
- (ix) A name, telephone number, and email address at which the notifying cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider can be reached for follow-up; and
- (x) A statement of whether the message is the notifying cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider's initial notification to the 911 special facility, an update to an initial notification, or a message intended to be the service provider's final assessment of the outage.

(5) *Follow-up notification.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers shall communicate additional material information to potentially affected 911 special facilities in notifications subsequent to the initial notification as that information becomes available, but cable, satellite, wireless, wireline and interconnected VoIP providers shall send the first follow-up notification to potentially affected 911 special facilities no later than two hours after the initial contact.

3. Add § 4.10 to read as follows:

§ 4.10 Public notification of 911 outages.

(a) *Notification breadth.* All cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers (as defined in 47 CFR 9.19(a)(4)) shall notify potentially affected customers of 911 unavailability (as defined in paragraph (b) of this section).

(b) *Notification threshold.* For the purposes of this section, 911 unavailability shall be defined as the continuous or intermittent inability of a customer to reach emergency services by dialing or texting 9-1-1 due to an outage that potentially affects a 911 special facility as defined by § 4.5(e)(1).

(c) *Notification timing and frequency.* (1) Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service provider shall contact the PSAP(s) affected by 911 unavailability (as defined in paragraph (b) of this section) as soon as possible after discovery of an outage but no later than 30 minutes after discovery to determine what, if any, alternative means of contact the PSAP would like made publicly available for the duration of the incident.

(2) Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service provider with customers experiencing 911 unavailability (as defined in paragraph (b) of this section) shall provide notification to potentially affected customers as soon as possible, but no later than within 60 minutes of discovering that 911 is unavailable. The provider shall provide any subsequent material updates regarding the estimated time of 911 restoration to its potentially affected customers as soon as possible.

(d) *Notification content.* Notifications of 911 unavailability shall include:

- (1) A statement that there is an outage affecting 911 availability;
- (2) Alternative contact information to reach emergency services at the request of the affected PSAP(s), should such information be available;
- (3) The time 911 service became unavailable;
- (4) The time the affected service provider estimates that 911 service will become available; and
- (5) The locations where customers are or are expected to be experiencing 911 unavailability.

(e) *Notification medium.* Each affected cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers (as defined in 47 CFR 9.19(a)(4)) shall prominently post the notification of 911 unavailability on the main page of its website and on any Internet- or web-based applications.

PART 9 – 911 REQUIREMENTS

4. The authority citation for part 9 continues to read as follows:

Authority: 47 U.S.C. 151-154, 152(a), 155(c), 157, 160, 201, 202, 208, 210, 214, 218, 219, 222, 225, 251(e), 255, 301, 302, 303, 307, 308, 309, 310, 316, 319, 332, 403, 405, 605, 610, 615, 615 note, 615a, 615b, 615c, 615a-1, 616, 620, 621, 623, 623 note, 721, and 1471, unless otherwise noted.

5. In § 9.19, revise paragraph (a)(4)(i)(B) to read as follows:

§ 9.19 Reliability of covered 911 service providers.

(a) * * *

(4) * * *

(i) * * *

(B) Operates one or more central offices that directly serve a PSAP. For purposes of this section, a central office directly serves a PSAP if it hosts a selective router or ALI/ANI database, provides equivalent NG911 capabilities, or is the last service-provider facility through which a 911 trunk or administrative line (i.e., a business line or line group that connects to a PSAP but is not used as the default or primary route over which 911 calls are transmitted to the PSAP) passes before connecting to a PSAP.

* * * * *